VOLUME 31, ISSUE 1

IOWA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

LATERAL LINES

MARCH 20, 2013

INSIDE THIS ISSUE:

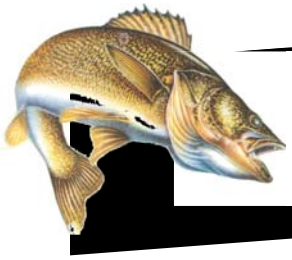
USING TANDOM HOOP NETS TO SAMPLE PANFISH

~ PAGE 6-8

A DIFFERENT TIME

~ page 9-11

"TWO DOGS IN SOME FIELD" PASSED ON AT THE IOWA AFS AUCTION



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AMERICAN FISHERIES SOCIETY

IOWA AFS CHAPTER
American Fisheries Society

Our Missions: To improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

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President's Corner

Kim Bogenschutz

Thank you, officers and members, for a very successful annual meeting! We tried something different this year by holding the Fisheries Bureau Statewide Meeting and the Iowa AFS Annual Meeting back-to-back at Honey Creek Resort State Park on February 11-13. The comments that I received indicated it was a successful merger. People liked having to travel only one time to participate in two meetings and were happy to sleep in comfortable beds with only one roommate. (For those of you unfamiliar with our usual accommodations for the Fisheries Bureau Statewide Meeting, it was held at Springbrook State Park where the sleeping quarters consist of multiple bunk beds meant for school kids in large rooms.) The content and quality of the presentations and posters were outstanding. I want to thank all the presenters and the judges who had to pay close attention to the presentations even when the lights became a bit distracting or made it difficult to see the score sheets. I also want to thank the ISU Student Subunit for contributing prizes to and helping with the raffle. We needed the extra hands because so many of you also donated prizes for the raffle and treasures for the auction. That brings me to another highlight of the meeting, the auction. Ben and DJ were not only highly entertaining; they also helped the chapter raise a lot of money to continue to fund projects, donations, and scholarships. Of course, you, the members, were the ones digging into your pockets to be the highest bidders. I thank you again.

Vince Travnichek, the North Central Division (NCD) First Vice President, attended the business meeting during our annual meeting. He highlighted some NCD technical committees that are inactive and in need of revitalization. If you are interested in fish culture, fish genetics, and/or reservoirs and are willing to contribute some time to a technical committee, let me know. I will put you in touch with the NCD officers to discuss the time and effort involved in running a technical committee. See the minutes of the business meeting later in this newsletter to see all of the work members of Iowa AFS are doing.

Spring is not only a busy time for Fisheries professionals around the state, it is also a busy time for the Iowa Legislature. The Iowa AFS makes donations to be members of the Resource Enhancement and Protection (REAP) Alliance, the Iowa Conservation Alliance (ICA), and the Iowa Environmental Council (IEC). All three groups have direct connections to the Iowa Legislature and keep us informed about what's happening with budget and bills related to natural resources and the environment. The REAP Alliance is dedicated to protecting the funding and formulas for REAP. I know many of you have helped with REAP grants and benefitted from REAP projects in your areas. The ICA and IEC work to advance numerous legislative issues of importance to hunters and anglers across Iowa and to protect Iowa's natural environment. This year both groups are following and supporting bills relating to the Natural Resources and Outdoor Recreation Trust Fund. You might recognize this as Iowa's Water and Land Legacy or as the 3/8ths of one percent sales tax increase that would dedicate sustainable funding for conservation and outdoor recreation in Iowa. I think we have all dreamed about what could be accomplished for natural resources in Iowa with the estimated $123.4 million generated annually for this new Trust Fund. I encourage you to check the websites of these groups that Iowa AFS supports to see what they are doing for you and what you can do for them.

It's hard to imagine that spring is supposed to be here within days while looking at the 5 inches of new snow covering everything outside my window. But the calendar says spring will be here in a week, and I am ready. I think.

BARRIER DETERANTS FOR WALLEYE AT THE RATHBUN RESERVOIR

~MARK FLAMMANG- IOWA DNR, FISH MANAGEMENT BIOLOGIST

Reservoir fisheries present managers a unique set of challenges. One of the most obvious yet most overlooked challenges to maintaining sustainable reservoir fisheries is fish escapement. A recent evaluation of walleye emigration from Rathbun Lake, Iowa determined that the probability of a walleye escaping increased with increasing mean daily discharge through the dam. Escapement probability increased exponentially with daily discharge and doubled as discharge increased from 40 to 60 m^3/s.

Our results indicate a substantial proportion of the Rathbun Lake walleye population has been lost recently, due in part to record water releases from the dam, making management of this reservoir walleye fishery challenging. The use of behavioral barriers (nonphysical), alternatives to physical barriers (such as nets or screens), have recently received considerable attention and appear to be highly successful at diverting fish. These barriers provide a negative stimulus that directs fish away from locations that may cause direct loss to fisheries. In addition to their effectiveness, nonphysical barriers do not require constant maintenance and there is no loss of dam operating efficiency caused by flow restriction. Several different types of deflection and guidance mechanisms have been employed, such as constant light, strobe lights, underwater sound, bubble curtains, and electrical barriers. However, none of these barrier technologies have been evaluated with regard to the deflection of walleye from reservoir outlets.

Iowa DNR and the Kansas City District of the Army Corps of Engineers sought to determine if strobe lights, underwater sound, and bubble curtains could be used to deter walleye. An evaluation was conducted in a test facility at Rathbun Fish Hatchery that utilized pumps to generate ~0.18 ft/sec of flow through a simulated outlet structure. A test barrier (Fig. 1 & 2) utilized three separate sound frequencies emitted by an array of underwater loudspeakers with a High Intensity Light System which can function at two levels of flash frequency. A bubble curtain was generated in front of the

Figure 1. Upstream view of barrier equipment.

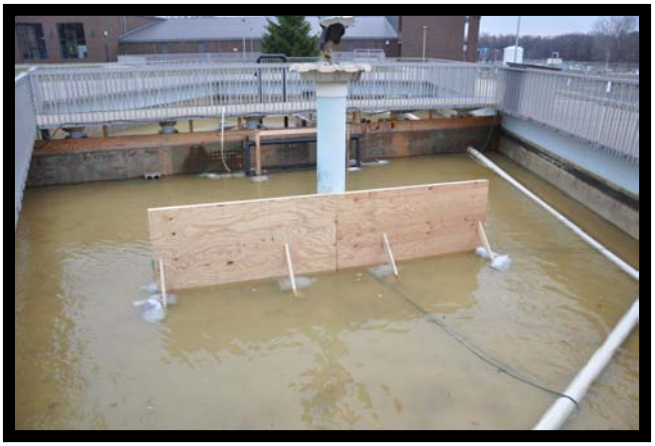

Figure 2. Upstream view of test facility with simulated outlet in the background and the sanctuary wall in the foreground.

sound and light generators for all trials except control and light-only trials.

A total of 12 trials were devised using various combinations of light and sound in tandem or singly, along with a control trial. Three repetitions of each trial were completed yielding a total of 36 trials. In each trial, 28 naïve walleyes were placed above the barrier and monitored for 16 h. All fish were tagged with PIT tags and two antennas monitored fish movement of fish throughout the test facility to determined when walleyes defeated the barrier.

Results from these trials indicated that walleyes reacted similarly across all ranges of sound and light when these technologies were used in tandem and results suggest that the sound and light barriers provided no reduction in emigration probability over controls. Trials utilizing only light suggested that walleyes may be attracted to light as emigration probability rose slightly over control. All sound and bubble curtain barriers reduced emigration probabilities by approximately 50% from controls, suggesting a substantial reduction of walleye loss from reservoirs can be obtained using sound and bubble curtains. (Fig. 3)

Following completion of the first 36 trials an additional nine trials were completed to further evaluate the apparent attraction of walleyes to light. A wall was placed in the upstream section of the test facility to offer walleyes a sanctuary from the intense lights. Three repetitions of both light frequencies were tested with three control trials. There was no significant difference in downstream transition rate for control and light only trials. Thus the light only barrier did not provide an effective barrier to walleye movement.

Overall, it appears that walleye emigration may be reduced by the utilization of a non-physical barrier. Preliminary results suggest that the most useful and cost-effective solution to this issue would be a barrier constructed with sound and a bubble curtain. The integration of light appears to provide no benefit to the overall functionality of this system, and in fact may counteract the positive effect of the sound and bubble curtain. Reductions in walleye emigration from Rathbun Lake would benefit anglers who provide substantial monetary support to the local area as well as the Iowa DNR who utilize this population as a brood source for the State's hatchery system. We suggest that the integration of a lake-based system in Rathbun Lake can provide substantial savings to the population of walleyes from both a biologic and economic standpoint.

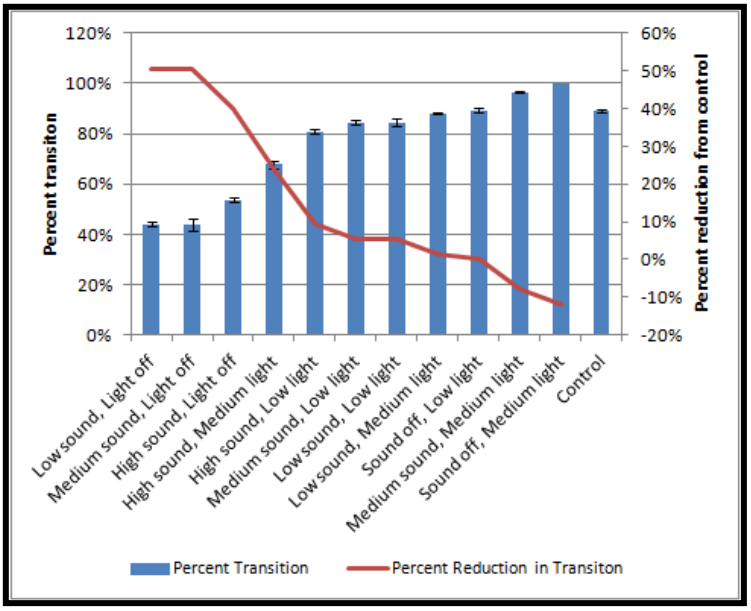

Figure 3. Mean percentage of walleyes to emigrate through various settings of the test barrier through three repetitions of each trial and the percent reduction in emigration (solid line) probability observed over control treatments.

USING TANDEM HOOP NETS TO SAMPLE PANFISH

~ RANDY SCHULTZ AND MARK FLAMMANG IOWA DNR, FISHERIES

Trap (modified fyke) nets have been used by Iowa DNR and other agencies throughout the Midwest and southern United States to describe age, size structure, and density indices of panfish populations. This gear has proven very effective and therefore has become an American Fisheries Society (AFS) standard for sampling panfish fisheries. During previous studies to standardize tandem hoop nets for sampling Iowa's channel catfish populations (Flammang and Schultz 2007), we noted considerable panfish bycatch. This observation prompted us to evaluate the use of unbaited tandem hoop nets for sampling panfish (bluegill, crappie, and redear) populations as compared to Iowa's previous (0.6 x 1.2 meter fyke nets; i.e., small fyke net) and newly adopted (0.9 x 1.8 meter fyke net; large fyke net) standard panfish gears. All three gears were fished concurrently during spring and fall

2012 in 15 Iowa lakes. Most lakes were southern Iowa impoundments that ranged in size from 5 – 4,500 hectares (median 28 hectares). The number of net sets was based on standard gear and techniques for fisheries surveys in Iowa (Schultz 2008), and were dependent on lake size with 3-12 fyke net sets and 3-10 unbaited tandem hoop net series per lake. Consistent with Iowa's standard sampling protocol, fyke nets were run after 24 hours and tandem hoops after 72 hours.

A total of 162 large fyke nets, 164 small fyke nets, and 162 tandem hoop net sets captured 6,801 bluegill, 5,162 black crappie, 7,531 white crappie, and 1,157 redear sunfish in 15 lakes over both seasons. Results suggest catch of bluegills, black crappie, white crappie and redear sunfish can be effectively sampled with both large fyke nets and unbaited hoop nets. Similar fyke net results have been observed by earlier Iowa researchers (Gritters 1997; Fischer et al. 2010). The adoption of the AFS standard large fyke net will result in increased catch for crappies and bluegills by Iowa biologists. However, hoop nets more effectively sampled black crappie in both spring and fall and bluegills in the spring, compared to the large fyke nets. White crappie catch was similar across seasons.

No differences in CPUE were observed across gears for redear sunfish. Estimates of precision among sampling gears suggest that hoop nets provide somewhat more precise estimates of catch than either fyke net type. As a result, required effort may be lower when utilizing this gear for panfish. However, it has not been determined at this point what level of decreased effort would be appropriate. Overall, large fyke nets captured approximately two to three times more crappie than small fyke nets in both seasons and more bluegill in the fall. At no time did large fyke nets capture significantly more panfish of any species than concurrently fished hoop nets. In most cases differences between unbaited hoop nets and large fyke nets were nonsignificant, but in some cases favored unbaited hoop nets.

Mean TL was always similar by gear within a season. As a result we do not believe that size structure estimates of stock-size panfish will be heavily influenced by changes in gear utilization. As such, long-term historic datasets can provide valid estimates of panfish size if standard gears are changed. However, CPUE as an index to density would be impacted by such shifts in gear type. Either a shift toward the use of large fyke nets or unbaited hoop nets will generally result in increases in CPUE, which many biologists rely on as an index to density. The ability to increase catch rates has obvious benefits, especially in systems with moderate to low densities of target species. The ability to reduce sampling effort in these systems would increase sampling efficiency and improve management of these species.

We are unaware as to why unbaited hoop nets serve as such an efficient sampling gear for the species evaluated. Perhaps panfish are orienting to the gear as a response to a "brushpile effect." That is, the fish utilize the nets as structure. Muoneke et al. (1993) suggested that hoop nets improve population assessments as they are able to fish a greater variety of habitats than fyke nets. As hoop nets were set for 72 h in duration this may improve the effectiveness of this gear. However, Flammang and Schultz (2009) observed that 72 h fyke net sets did not sample fish as effectively in multiple lakes in southern Iowa. It is likely that the physical size of the gear in question (three 3.4 meter long hoop nets attached with 0.9 meter bridals) plays a role in "attracting" fish to the gear.

Recent efforts have been made to establish standardized fish sampling methods across freshwater ecosystems in North America (Bonar et al. 2009). Benefits of standardized sampling include minimizing sampling bias, while providing consistency in data collection across aquatic systems. Bonar et al. (2009) recommended standard sampling procedures and gear across various habitats and species. While the standard fyke net suggested is considered to be a standard gear, we suggest that Bonar et al. (2009) did not intend for these procedures to remain static and alternatively this represents a living document that will encompass future improvements in the understanding of fish sampling methods. An increasing number of agencies utilize tandem-set hoop nets for evaluating channel catfish populations, yet little if any attention has been given bycatch, other than overall mortality rates (e.g., Flammang and Schultz 2007). The use of unbaited hoop nets for evaluating panfish populations may represent one potential addition to standard sampling protocols.

It is our suggestion that large fyke nets be integrated per the AFS standard sampling suggestions on a statewide basis (Pope et al. 2009). Sampling efficiency will likely increase with the use of this gear. However, unbaited hoop nets also appear to offer an equally precise method of evaluating panfish populations. Given the preference by Iowa biologists for these nets, we suggest that unbaited hoop nets may provide a second, and perhaps more preferable alternative to panfish population evaluation than the larger fyke nets, and encourage their evaluation by other agencies.

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A DIFFERENT TIME

~DAVE WALLJASPER, IOWA DNR, HATCHERY BIOLOGIST, RATHBUN FISH HATCHERY

Reflect back to a time long ago, April of 1977. Rathbun Hatchery was being completed after three years of construction and a new era of fish culture in Iowa was about to begin. The hatchery was designed and promoted as an "intensive culture" facility where catfish would be cultured in a confined environment; twenty concrete rearing ponds each comprising .05 surface acre. The total water surface area equaled one acre, the size of many traditional catfish rearing ponds of that era. All catfish production at Fairport and Lake Wapello hatcheries would be assigned to Rathbun. Statewide catfish requests at that time were around 225,000 four to six inch catfish.

Past channel catfish culture procedures used in earthen ponds would be modified in order to be successful at Rathbun. Channel catfish broodstock were maintained at the hatchery and paired in start tank pens in order to obtain the necessary one million eggs required for annual production. Tank room water was filtered and disinfected through state of the art sand filters and ultraviolet equipment before introduction to fish in the start tanks. Channel catfish was the primary species cultured although

largemouth bass, tiger muskellunge, and flathead catfish were also cultured at various times in the early years.

Feed requirements for the various rearing units were figured with a simple calculator and the aid of a paper columnar accounting pad, basically a green paper Excel spreadsheet. Computers available to the masses were not on the scene until 1982 with the arrival of the highly touted Apple IIe with the high resolution green monochrome screen. That Apple computer was a big improvement over the calculator/pad method of computing feed needs at the time. Marianne Wakefield, hatchery secretary at that time, was very leery of the new computer; she much preferred the comfort of the old IBM Selectric typewriter. At least she could tell where the type was emanating from although those correction ribbons didn't always do the best job of eliminating errors!

As the culture season progressed through the summer oxygen levels in the concrete circulating ponds were monitored with a Hach test kit that utilized reagent pillows, a mixing tube, and a comparator color wheel. YSI and Hach electronic oxygen probes were a distant dream. Observation of fish behavior and condition were key in the effort to stay ahead of any problems related to disease, feed consumption, and insufficient oxygen levels in the water. Electric aerators and increased water flows were the only options available to improve the pond rearing environment short term. Packed columns and oxygen injection into incoming water came onto the scene in the early 90's and greatly improved oxygen delivery to the ever growing catfish in the rearing ponds. Walleye had made it onto the radar in the late eighties and experimentation with diet and culture techniques in Rathbun's tanks and concrete circulating ponds was being evaluated. Rathbun hatchery large fingerling walleye production now is usually about double the annual large catfish fingerling production.

The summer culture season gave way to the fall harvest season and stocking trips were planned in order to distribute the catfish throughout the State. Fisheries management biologists were dialed up on the phone and necessary stocking schedules formulated. Routes were planned with the aid of the Iowa highway map and county section maps with the necessary stocking sites highlighted in yellow. Many of the maps at that time were small enough to qualify for the close reading eye test at the local optometrist's office! Google earth, GPS, and other modern aids to navigation were nowhere on the horizon for the average civilian. Locating lakes in northern areas of Iowa was always made easier by looking out from the truck window over the crop fields for the cluster of trees; the lake was usually located in the middle of the trees. The next task that the driver faced was locating the proper road heading to the lake which in that area of Iowa usually meant coming straight in from one of four principal directions.

The catfish needed for the daily stocking trips were enumerated and weighed out the day prior to stocking on a Chatillion mechanical platform scale. The catfish were distributed into holding tanks with the aid of bicycle tired carts pushed by the workers and technicians. This exercise was definitely exercise, sleep was never a problem at night after an afternoon of dipping catfish and running the carts around the facility. The arrival of the electric Cushman cart in the fall of 1982 was great day in the eyes of all the cart pushers. All but one of the old carts has been dismantled and the remaining cart is used to transport the digital scale to the necessary pond for harvest check weighs and enumeration.

Daybreak came quickly during harvest season, the loading light was positioned by the holding tank at 6:00 AM and truck loading began. The hydraulic crane used today was nowhere to be found; the fish were dipped and loaded onto the truck via dip nets and strong arms of several individuals. Early fish distribution trucks were Ford

cabovers with manual transmissions and AM radios that would only pick up 1040 WHO. You didn't need to worry about the AC not functioning, there wasn't any! The driver needn't worry either about visiting with any State troopers on the shoulder as the trucks were lucky to maintain 55 MPH on a flat road. Speeds up to 60 MPH down a hill in order to maintain 40 MPH up the next hill were the norm. Aeration was provided to the tanks via Briggs and Stratton powered Roots blowers supplying low-pressure air to large carborundum stones in each tank. Efficient Porex PVC air stones, compressed oxygen cylinders, and high-powered Fresh-Flo aerators hit the scene in the early to mid 80's. Today's relatively smooth riding trucks with luxuries such as automatic transmissions, AM-FM-CD stereo, air conditioning and cell phones are a vast improvement for drivers whereas fish benefit from technologies providing efficient aeration and oxygenation via liquid oxygen.

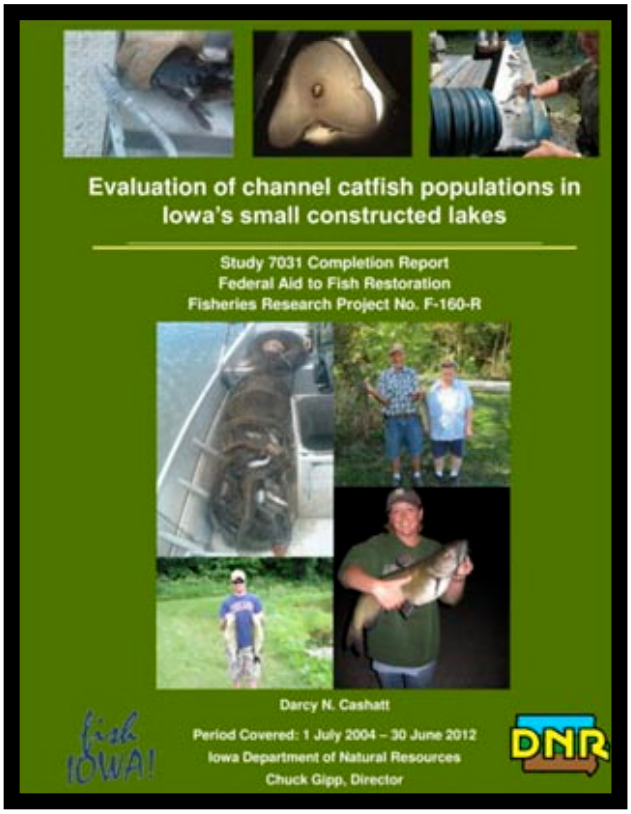
From the casual hatchery visitor's viewpoint the physical appearance of the Rathbun Hatchery has not changed notably during the last 35 years. The addition of the multi-level intake at the outlet of Rathbun Lake for water temperature and dissolved oxygen selection was completed in 1990 but is not visible beneath the water's surface. Notwithstanding however, there have been several landscape altering additions to fields directly behind the hatchery. The Rathbun Fish Culture Research facility and feed storage room was constructed in 1995 and the ten one-acre lined production ponds and six one-tenth acre lined research ponds were constructed in 1998 with completion in 1999. A nine bay vehicle and equipment storage building utilized by fisheries management, fisheries research, and the hatchery was constructed adjacent to the lined culture ponds in 2001.

With the 35th anniversary of the hatchery dedication a year behind us one might ponder the state of Rathbun Hatchery at its 50th anniversary in 2027. With the arrival of ANS species and Zebra mussels new devices and methods such as updated water process equipment and water recirculation are being explored in order to meet current and future fish culture needs. Just as in the early days, current and new Rathbun Hatchery personnel will tackle the challenge to culture varied fish species for anglers throughout the state of Iowa.

CHANNEL CATFISH RESEARCH IN IOWA LAKES AND IMPOUNDMENTS WRAPS UP

~DARCY CASHATT, GEORGE SCHOLTEN, LEWIS BRUCE~ IOWA DNR, FISHERIES RESEARCH

Channel catfish are one of the most sought after sport fish species in Iowa and are stocked into almost every lake in the state. Hatchery space limits fish production and annual requests for catfish from managers regularly exceed production capacity. In 2004, the DNR's Small Impoundment Fisheries Research Team began an eight year study that we designed to provide fisheries managers with the information they need to sample catfish fisheries and decide how best to use this limited hatchery product. This study consisted of four main parts. The first aspect was an in-depth analysis of mark-recapture population estimates from 32 lakes and impoundments across the State combined with historic stocking rates, predator abundance estimates and water quality parameters. The objective was to determine which parameters would provide the best trend data for managers to make assessments of the population and inferences about density, biomass and growth in one lift of standard baited-hoop nets. Second, a comparison of baited hoop nets and fyke nets was made to determine catch differences, size bias and recapture bias between gears. Third, 9 recent and 7 past creel surveys as well as catfish tournament information were used to assess catfish angler effort and catch and harvest rates statewide. Fourth, during recent creel surveys on 6 lakes and impoundments a question was posed to catfish anglers to assess their preference for either greater numbers or size of catfish to harvest. Major findings from this research bolstered past research from the SE portion of the State and were as follows:



Standard Sampling

A single lift of Iowa DNR's standard catfish sampling gear provided an informative assessment of most catfish fisheries. Catch per unit of effort with this gear was a good indicator of density in both hatchery- and cage-stocked lakes. Managers can use standard sampling data with the regression trees in this report to make quick, general inferences about a catfish fishery.

Standard catfish sampling should not be conducted in lakes during years when catfish are reared in floating cages because catch rates are up to five times lower. The presence of these cages during sampling also influenced recapture bias between hoop and fyke nets.

Hoop nets caught 2-18 times more catfish than fyke nets and fyke nets may be biased towards larger fish. Turtle by-catch and mortality was also problematic in 3-day fyke net sets. For these reasons, fyke nets are not recommended for sampling catfish in Iowa lakes.

Structures for age-growth analysis should be collected in spring or fall and not during the standard summer sampling period. Considerable within lake variation in annulus formation was observed during summer.

Population Assessment

High density populations were generally composed of few large (>20 inches) fish with low relative weights. Proportional size distribution, mean size, and relative weight were negatively related to density. A high CPUE of substock catfish was indicative of a high density population.

Largemouth bass abundance was positively related to catfish size distribution, condition, and biomass. High water clarity was related to faster catfish growth.

Particularly with cage-stocked lakes (though not exclusively), densities of channel catfish can become so high that growth is impacted. If fast growth is desired, CPUE should be maintained below 175. When CPUE exceeds 200, stocking should be discontinued.

Stocking

Lakes stocked with larger (mostly cage-reared) catfish attain higher density and biomass than lakes stocked with smaller hatchery-reared fish at similar stocking rates. There was a significant positive relationship between size at stocking and both density and biomass. Hatchery stocked catfish should be at least 8 inches (i.e., ~9-inch average) before stocking in Iowa lakes.

Stocking rate, though significantly linearly related to density estimates, was relatively unimportant in dividing populations into groups of higher and lower density, biomass or growth.

Catfish Anglers

The proportion of channel catfish angling clientele and effort varied greatly between lakes; therefore management objectives, such as stocking rates, should take these differences into account.

In general, it appeared that the majority of catfish anglers preferred to keep a greater number of smaller channel catfish over just one or two large fish, however there was not a significant difference when all lakes surveyed for this study were compared.

In response to all these conclusions it was recommended that fishery managers be given the flexibility to tailor management goals and strategies for each lake. A copy of the completion report can be requested from darcy.cashatt@dnr.iowa.gov.

IN THE NEWS
~IOWA OUTDOORS

ELECTRIC FISH BARRIER READY TO PROTECT IOWA GREAT LAKES

SPIRIT LAKE, Iowa - The electric fish barrier that will keep Asian carp from entering the Iowa Great Lakes through the Lower Gar Lake outlet is in place and operational. All that remains to be completed for the nearly $1 million project is final site restoration.

Mike Hawkins, fisheries biologist with the Iowa Department of Natural Resources, said if a high water threat arose, they could activate the barrier to prevent invasive fish from entering the Iowa Great Lakes from downstream.

"Invasive species seem unstoppable and are negatively impacting aquatic resources across the nation. This is an example of coming together as a community to win an important battle against them," Hawkins said. "The electric fish barrier is currently the only effective tool to prevent upstream migration in this case."

Electric barriers are superior to physical barriers because they do not obstruct water flow or collect debris. The system creates an electrical field in the water that prevents fish from moving past it. Most fish will avoid the electric field, but if a fish tries to swim past it, the electric field immobilizes the fish and the flowing water pushes it back downstream unharmed.

The electric fish barrier project became a priority after big head carp and silver carp were found in the lakes while sampling fish populations on three separate occasions.

Two bighead carp were collected during a routine population survey in August 2011. In March 2012, 88 big head and 55 silver carp were collected during a seine haul at the East Okoboji Lake narrows. During the same time, two silver carp were collected in Big Spirit Lake.

The fish likely entered the chain of natural lakes during the flood of 2011 that allowed them to pass over two dams in the Little Sioux River and over the outlet dam on Lower Gar Lake at the bottom of the Iowa Great Lakes.

There was a sense of urgency locally and within the DNR to protect the lakes that are important for the area's tourism industry and economy. The ecology and lakes are too important.

From pre-design to operational, the 10-month project was a locally driven partnership between the cities, county, lake associations, water safety council, private organizations, and the Iowa and Minnesota departments of natural resources.

The Iowa Great Lakes are fed by streams flowing from Minnesota. The Minnesota DNR contributed $261,000 to the project with funding provided by the Outdoor Heritage Fund. The fund, which receives revenue from Minnesota sales tax dollars, may only be spent to restore, protect and enhance wetlands, prairies, forest and habitat for game fish and wildlife.

"We are looking at every opportunity to protect streams and lakes in Minnesota from Asian carp," said Steve Hirsch, director of the Ecological and Water Resources Division for the Minnesota DNR. "This collaboration with our partners in Iowa will prevent Asian carp species from moving into the southwestern part of our state."

"This was a huge community effort to come together, raise money and get the job done," Hawkins said. "Minnesota had an interest in the project and made a significant monetary contribution. They were a great partner."

Now that the barrier is in place cutting off access to additional Asian carp from entering the lakes, is there an estimate of how many did get in?

"We do not have a population estimate, but we do know that these fish need large river systems to reproduce and there is no evidence that they can reproduce in a lake environment," Hawkins said. "We believe

their numbers are limited. Commercial netting and our annual sampling will give us some information on numbers."

Big head carp and silver carp are filter feeders and not likely to be caught by hook and line.

So far, there has not been a reported boating incident with these fish in the lakes, and area leaders are confident the barrier will prevent additional unwanted guests from entering the lakes.

SIDEBAR: ASIAN CARP IN THE U.S.

Bighead and silver carp were introduced into the southeastern United States, escaped into the wild in the 1980s, and have been rapidly spreading throughout the Mississippi and Missouri River watersheds ever since.

Bighead and silver carp are filter feeders and can impact native fish species and lake ecosystems by filtering zooplankton from the water that is an important food source newly hatched fish.

Silver carp are the more known of the two species because of the videos showing them leaping out of the water.

Both species can live more than 20 years and grow to more than 100 pounds.

Media Contact: Mike Hawkins, Fisheries Biologist, Iowa Department of Natural Resources, 712-336-1840.

IN THE NEWS
~IOWA OUTDOORS

DNR WILDLIFE RESEARCH WEBPAGE DEVELOPED

DES MOINES — Wildlife research conducted by the DNR research staff or about Iowa's wildlife has been gathered in one place for interested Web users at www.iowadnr.gov/Environment/WildlifeStewardship/ResearchPapersReports.aspx

"Since redesigning our website a couple of years ago, we've had questions about where our wildlife research and diversity information is located," says Willie Suchy, DNR wildlife research unit leader.

"We've organized our latest research information by the species specialty of our various wildlife research stations: deer, turkey and forest game; upland wildlife and grasslands; waterfowl and wetlands; furbearers; nongame wildlife; and surveys of people's observations and concerns about Iowa's wildlife. The newest reports are listed first."

As new research is completed, those research papers and reports will be posted to or linked from this new web page.

MEDIA CONTACT: Willie Suchy, Wildlife Research Unit Leader, Iowa Department of Natural Resources, 515-281-8660 or Willie.Suchy@dnr.iowa.gov

Wildlife research, either conducted by our research staff or about Iowa's wildlife will be continually updated. Topic areas align with the specialties of our wildlife research stations across Iowa.

HISTORIC PHEASANT BOOK NOW AVAILABLE ONLINE

BOONE – The original and historic accounts of ring-necked pheasant in Iowa published in 1977 is now available electronically at www.iowadnr.gov/Hunting/PheasantSmallGame.aspx

The book was written by then Iowa Conservation Commission upland game biologist Al Farris and has been out of print for decades. The electronic version of "The Ring-Necked Pheasant in Iowa" allows users to navigate and search specific details within the file. It can also be read aloud to the viewer.

"The book presents many ideas, challenges, and solutions from the past that are still discussed today, but without the changes over time in landscape and culture," said Todd Bogenschutz, upland wildlife biologist for the Iowa Department of Natural Resources. "This is an excellent perspective of where we've come from and of lessons learned."

The book addresses nearly every historic aspect of pheasants in Iowa including how pheasants arrived, dispersed, the first hunting season and bag limits, early management issues, and more.

"We get requests for this book each year and refer to it often," said Bogenschutz.

MEDIA CONTACT: Todd Bogenschutz, Upland Wildlife Biologist, Iowa Department of Natural Resources, 515-432-2823.

DNR PROPOSES BIRD CONSERVATION AREA AROUND SEDAN BOTTOMS WMA

MORAVIA – The Iowa Department of Natural Resources is hosting a public meeting on Jan. 24, to discuss a proposed designation of a region including Sedan Bottoms Wildlife Management Area as a state Bird Conservation Area (BCA).

The meeting begins at 6:30 p.m. at the Rathbun Lake Fish Hatchery, located about 5 miles southwest of Moravia, along county road J5T immediately below Rathbun Lake Dam on the north side of the Chariton River.

"The proposed Sedan Bottoms BCA is a unique area containing grassland, woodland and wetland habitats that provide homes to at least 113 nesting bird species, many of which are declining at an alarming rate," said Bruce Ehresman, wildlife biologist with the DNR's Wildlife Diversity Program.

"From birds of large forests, like red-shouldered hawk and wood thrush, savanna species such as red-headed woodpecker and northern mockingbird, to declining grassland birds like northern bobwhite and bobolink, Sedan Bottoms Wildlife Management Area, along with the Chariton River and adjoining lands, provide the ideal southern Iowa setting for what could be Iowa's eighteenth Bird Conservation Area."

Creating Bird Conservation Areas is a high priority for the Iowa DNR. The Bird Conservation Area concept focuses on all-bird conservation at a large landscape scale, and the program's success depends upon partnerships between public agencies, private conservation organizations, and private landowners.

Each BCA consists of at least 10,000 acres with one or more core areas of permanently protected bird habitat surrounded by large areas of privately owned land that also provides important habitat for birds. Core public lands are managed for all wild birds, but especially for those species experiencing regional or continental population declines.

Wildlife biologists and private lands specialists work with willing landowners to find ways to improve their properties for birds. The program is entirely voluntary, non-regulatory, and can result in extra incentives for landowners to make bird habitat improvements.

"Establishing a Bird Conservation Area helps draw attention to the needs of birds that are in trouble, plus it allows the local community and concerned citizens an opportunity to take action to help these birds," said Jeff Telleen, area wildlife management biologist for the DNR. "Declining species ranging from game species like American woodcock to nongame species such as whip-poor-will all should benefit from the creation of the Sedan Bottoms Bird Conservation Area."

STRANGE FISH: REMORA

http://animalreview.wordpress.com/

The remora is Nature's Annoying Friend. A fish in the order *Echeneidae* (trans. 'Freeload McGee'), the remora spends its days mooching off other animals in order to avoid real work. Within *Echeneidae* there are eight species in four genera, though all the species are pretty much the same deal: they have a sucker in place of their first dorsal fin, which they use to suction cup themselves onto the skin of larger marine animals, hitch a free ride, and commence mooching. Though they can swim well on their own, remoras hold fast to the motto 'Work smarter, not harder,'[1] which is why they are best known to most people for dangling off sharks on the Discovery Channel.

Contrary to the popular notion (see Discovery Channel, above) that remoras specifically latch onto terrifying sharks in a show of jocular élan, remoras can be found stuck to whales, manta rays, turtles, tuna, and marlin. Remoras are equal opportunity suckers, and have been known to attach themselves to scuba divers' legs and even boats.[2] In short, anything large with enough work ethic to move through water is apt to find itself being imposed upon by a remora.

A remora's relations with its host are what as know as commensalism, which means that one party (the remora) in the relationship benefits while they other (the animal with the actual job) gains nothing and loses little. Specifically, the remora gets a free ride, protection, and leftover food from the host, whether in the form of leftover fragments or feces, though both are the remora's 'favorite price.'

Indeed, we all have a friend who never really does anything for us and often bums us out but never hesitates to call us for 'help with something.' Sure, every so often you resolve to stop answering the phone, but then guilt kicks in and next thing you know you're spending Saturday night showing Joe the Remora how to file his late taxes.

Some scientists believe that remoras actually do sharks *et al* a solid by removing bacteria and other waste from their skin. Even if this turns out to be the case, it's probably done to play on everyone's sympathies and make them forget what massive soul suckers they are.

When it comes to grading, there is obviously little to recommend the remora, just as there's little to recommend your buddy with the late taxes. They both attach themselves to you and hang on for the ride. Yet, even

though we suspect deep down that this kind of behavior is ultimately as destructive to the sucker as it is to suck-ee and we think it'd be best for all involved to just fail them, yet again guilt again takes over and we end up doing something that we can't fully explain.

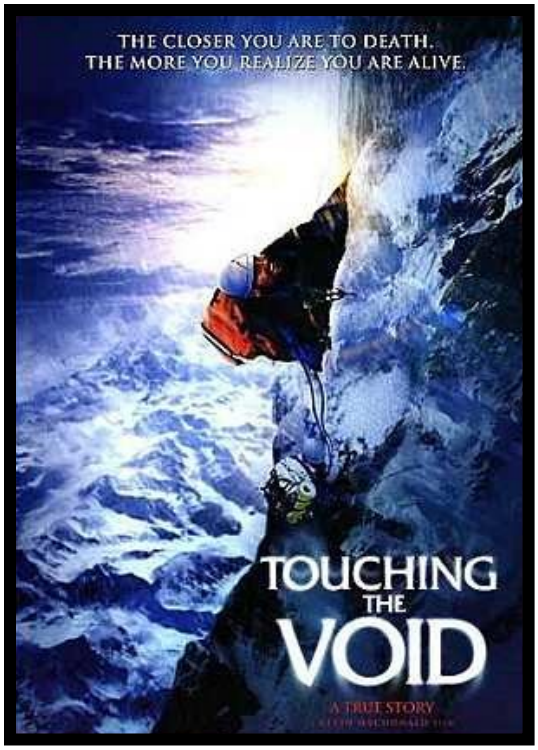
GRADE: D-

[1]In private, remoras like to joke that their motto is actually 'Work smarter, suck harder,' but only say it to each other in the nearly-impenetrable Remora language. Another variation on this joke is 'Suck harder, work ardor,' but it only makes sense if you speak Remora and are extremely drunk.

[2] In ancient mythology, the remora was believed capable of stopping a ship from sailing (indeed, the name 'remora' comes from the Latin word *mora*, meaning 'delay' or 'hold up' or 'totally annoy'). Also, as a normative aside, this particular belief, even by the standards of people who believed that there were only four elements, is beyond stupid. But that didn't stop Pliny the Younger for blaming remoras for Mark Antony's defeat at Actium.

READING MATERIAL

Touching the Void: The True Story of One Man's Miraculous Survival



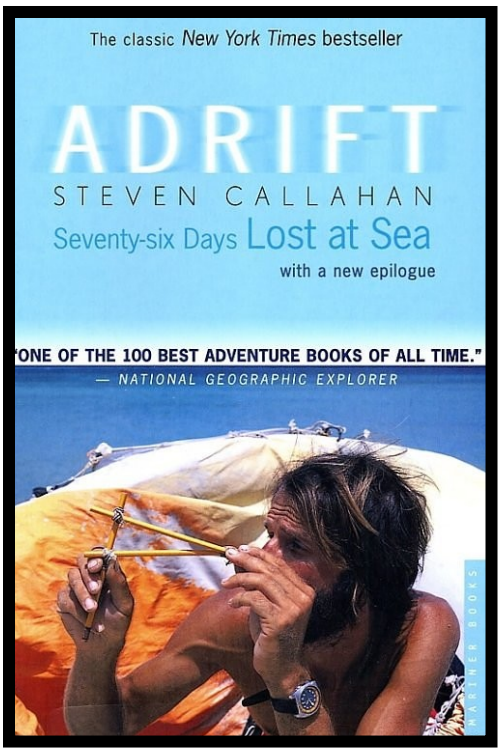
Author: Joe Simpson

Joe Simpson and his climbing partner, Simon Yates, had just reached the top of a 21,000-foot peak in the Andes when disaster struck. Simpson plunged off the vertical face of an ice ledge, breaking his leg. In the hours that followed, darkness fell and a blizzard raged as Yates tried to lower his friend to safety. Finally, Yates was forced to cut the rope, moments before he would have been pulled to his own death.

The next three days were an impossibly grueling ordeal for both men. Yates, certain that Simpson was dead, returned to base camp consumed with grief and guilt over abandoning him. Miraculously, Simpson had survived the fall, but crippled, starving, and severely frostbitten was trapped in a deep crevasse. Summoning vast reserves of physical and spiritual strength, Simpson crawled over the cliffs and canyons of the Andes, reaching base camp hours before Yates had planned to leave.

How both men overcame the torments of those harrowing days is an epic tale of fear, suffering, and survival, and a poignant testament to unshakable courage and friendship.

Adrift: Seventy-six Days Lost at Sea



Author: Steven Callahan

Before The Perfect Storm, before In the Heart of the Sea, Steven Callahan's dramatic tale of survival at sea was on the New York Times bestseller list for more than thirty-six weeks. In some ways the model for the new wave of adventure books, Adrift is an undeniable seafaring classic, a riveting firsthand account by the only man known to have survived more than a month alone at sea, fighting for his life in an inflatable raft after his small sloop capsized only six days out. "Utterly absorbing" (Newsweek), Adrift is a must-have for any adventure library.

Iowa Chapter of the American Fisheries Society Annual Business Meeting
Iowa Chapter AFS Meeting – Honey Creek Resort State Park
4:30 PM, Tuesday, February 12, 2013

CALL TO ORDER

The meeting was called to order by President Kim Bogenschutz. Kim Bogenschutz introduced EXCOM: President-elect: Ben Wallace, Secretary/Teasurer: Andy Otting, Past President: Chad Dolan, and NCD Representative: Vince Travnichek. In attendance at the beginning of the meeting were 64 chapter members.

TREASURER'S REPORT

Treasure's report was given by Andy Otting. The chapter started the year (1/1/12) with a balance of $12,767.99. Disbursements since the last financial report equaled $6,951.29 and receipts equaled $1,931.55. Despite appearances, the Iowa Chapter did not lose significant money in 2012. The Iowa chapter collected all proceeds from the MWFWC raffle held in December 2011 and then paid out The Wildlife Society and ISU student subunit shares early in 2012. These shares equaled $4,623.72 of the $6,951.29 disbursed in 2012. Currently the Iowa Chapter has a balance of $7,748.25. Noteworthy activity on the account included 2012 REAP Alliance dues $150, $100 for the Iowa Environmental Council, $100 to Iowa Conservation Alliance, $500 ISU scholarship presented to Grant Scholten, and a $100 donation to the ISU Natural Resource Ecology and Management Field Notes publication. Receipts came from membership dues, and registrations for the Turtle Biology and ID continuing education course held at Iowa State University.

Proposed budget keeps payments to Iowa Environmental Council, REAP Alliance, Iowa Conservation Alliance and 2013 ISU scholarship. Additionally up to $1,000 will be given in Fisheries Grants in 2013 at the discretion of the EXCOM. The projected account balance following the 2013 Iowa AFS Annual Meeting is expected to be ~$9,500 – $10,000. Mike Mason motioned to approve the financial report and proposed budget, Gary Siegwarth seconded. Unanimous vote, budget approved.

COMMITTEE REPORTS

Audit: Ben Dodd. Ben Dodd reviewed and approved the financial report. Ben Dodd will remain as auditor.

Membership: Chad Dolan. There was a decrease in membership from 106 in 2011 to 88 in 2012. The drop is likely due to not having an Iowa Chapter annual meeting in 2012 due to the MWFWC held in December, 2011. Membership numbers should rise again in 2013.

The EXCOM proposed the idea of adding a $200 lifetime membership option. Points of discussion included: If regular dues rise, will lifetime membership rise? Can price be based on age? Bernie Schonhoff recommended a survey be sent out to the membership to seek acceptable options. Jeff Kopaska motioned the EXCOM to develop a proposal to be voted on by the membership. Randy Schultz seconded.

Resolutions committee: Don Herrig/Donna Muhm.

No resolutions. Don and Donna will continue as resolutions committee chairs.

Nominations: Gary Siegwarth

Seeking nominations for President-elect and Secretary/Treasurer. Gary prefers voluntary, but will resort to bribery and arm twisting if needed.

Program Committee: Ben Wallace.

Ben is taking ideas for 2014 annual meeting.

Student Subunit: Cole Harty

The ISU student subunit was active volunteering at stations around the state to assist with field work in 2012 and look forward to doing it again in 2013. The subunit assisted the Boone Management team with a family trout fishing event held at Ames in February. The subunit with other university staff completed a fish habitat project at Ada Hayden Lake in Ames.

Continuing Education Committee: Clay Pierce.

Clay Pierce was not present.

A turtle ID and biology course was held in August and attended by ~24 people. Necessary sampling gear was

handed out to units that will be doing turtle sampling. Instruction was provided on sampling procedures and data collection. Andy Fowler will be working on a database for turtle sampling data.

Need to keep track of proof of attendance at continuing education courses for members who may seek professional fisheries certification through AFS.

Andy Fowler has put Mike Colvin's R-statistics course on the Iowa AFS website.

Chris Larson mentioned that a fisheries techniques course be suggested to Clay Pierce for the 2014 continuing education course.

Technical Committee Reports

Walleye Technical Committee: Donna Muhm.

Dan Iserman is the new chair. The winter meeting was held at the Midwest in Kansas. Donna reported that the joint summer meeting with Esocids and Centrarchids held the third week of July with Wisconsin at Wasau.

Centrarchid Technical Committee: Lewis Bruce.

Winter meeting was attended by 12-15 people. There will be a joint meeting again with walleye and esocid in Wisconsin. A symposium will occur in Little Rock at National AFS.

Esocid Technical Committee: Jonathan Meerbeek.

Jonathan helped organize the workshop in Hayward, Wisconsin. The winter business meeting was held in Kansas. The Esocid Technical Committee website may be visited to view individual state reports.

Rivers and Streams Technical Committee: Greg Gelwicks.

The 25th annual RSTC meeting will be held March 26-27 in Milan, IL. Presentations will be related to the history of stream management. If members that would like to receive meeting announcements, but are not, need to talk with Greg Gelwicks.

Ictalurid Technical Committee: Dan Kirby.

The annual business meeting was held at the Midwest in Kansas. Dan provided Iowa catfish information for the meeting. A catfish sampling workshop will be held at the Kibbe Field Station in Illinois.

Fish Culture Section: Alan Johnson

No report.

NCD: Vince Travnichek

Vince was recently elected First Vice President NCD. Vince provided an overview of who currently holds officer positions and explained the structure and role of the NCD. There is currently ~1500 dues paid members with about one third being students. Encouraged the Iowa Chapter to utilize the Joan Duffy Travel Award with a $250 match for one student to travel to Midwest meetings.

Awards:

Past President: Chad Dolan

Old Business:

Donation levels to lobby groups was discussed. Kevin Hanson motioned to increase the Iowa Conservation Alliance donation up to $250 and was seconded by Jim Wahl and Gary Siegwarth. The membership voted unanimously in favor.

A New REAP Alliance officer was needed. Alan Johnson was nominated.

New Business:

Chris Larson motioned that March 1st be the deadline for AFS habitat grants. Michael Steuck seconded.

Ben Wallace is interested in setting up a guideline for IDNR employees to obtain fisheries certification through AFS. There is a need to find where course credits can be earned. Interested individuals are encouraged to contact Ben Wallace.

Adjourn.

Gary Siegwarth motioned to adjourn, Jim Wahl seconded. Passed - unanimously.

Iowa Chapter President Kim Bogenschutz congratulates Past President Chad Dolan for his excellent work during his tenure as Iowa Chapter President (2011-2012)

Don Herrig passes on the coveted "Two Dogs in Some Field" to the highest bidder: Kirk Hansen

Application form

Fisheries Project Grant

Iowa Chapter – American Fisheries Society

Project Name:_____

Project Description: _____.

_____

_____

_____

Attach map or supplementary information

Project Location:

Water Body:_____

Address:_____

_____County:_____

Start Date: _____ End Date:_____

Project Personnel:_____

_____

Fisheries Benefits:_____

_____

Iowa Chapter Representative: _____

Amount needed: $ _____._____ Total project cost: $_____._____

Money will be used for: _____

_____

_____

_____

Up to $1,000.00 per project.

Approved by Excom Committee Date:_____

The Iowa Chapter of the American Fisheries Society is offering to help finance worthwhile fisheries related projects. The completed application form needs to be transferred to the Iowa Chapter President by an Iowa Chapter Member.

Project Name – Give the project name.

Project Description – Give a brief review of the intended project. Include the work to be done, the methods and material that will be used in the project.

Attach a map and any supplementary information that you think will help the Excom Committee evaluate the project.

Project Location – Where will the work be done.

Start and End dates for the project. Month and calendar year will do.

Project Personnel – Include organizations and or individuals who will be directly involved in the work.

Fisheries Benefits – A very important part of the project should be direct benefits to Iowa's fishery. How does the project help and who is the beneficiary?

Iowa Chapter Representative – All projects need to have and Iowa Chapter member as a sponsor.

Amount needed – Tell us how much you need and the total project cost.

Money will be used for – Be as specific as you can. Will the money be used to hire people, buy, equipment, be seed money for a grant, etc.

There is a $1,000.00 limit for each project.

The Excom Committee of the Iowa Chapter will review the application and approve or reject the request.